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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/432,338	11/02/99	ZIMMERMANN	K 10191/1157

EXAMINER	
KEASEL, E	

QM02/0227

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ART UNIT	PAPER NUMBER
3754	7

DATE MAILED: 02/27/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 09/432,338	Applicant(s) Zimmermann et al.
	Examiner Eric Keasel	Group Art Unit 3754

☒ Responsive to communication(s) filed on *Jan 16, 2001*.

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *3* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-7* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-7* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Specification

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the terms "means for determining a duration of a time window ..." of claim 7, lines 4-6, and "means for determining a switching instant..." of claim 7, lines 7 and 8, have not been used in the specification. There is no way to determine what, if any, apparatus is associated with these terms.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-7 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The second step of claim 1 ("determining a switching instant...") has not been described in the specification in any detail. The only explanations of this step are on page 4 with

nonenabling phrases such as "This break is usually detected by current analysis" on line 12 and "the time curve of the current is analyzed to determine the switching time" on lines 24 and 25. The disclosure is simply inadequate for such an essential step (one of only two steps in claim 1). It appears that one of the major purposes for this invention is to provide a sufficient time window between t3 and t4 such that the switching instant can be identified. It is absolutely critical to the invention to know what this current analysis is and how long it takes in order to determine the sufficiency of the time window.

The "means for determining a switching instant" of claim 7 is also not enabling. This is an apparatus claim and no apparatus is identified by the disclosure for determining a switching instant.

The "means for determining a duration of a time window" is also not enabling. Only the algorithm of Fig. 3 appears to be associated with determining a duration of a time window. This is an apparatus claim and an algorithm is not an apparatus.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The construction of the method claims renders them indefinite. It appears that claims 2-4 describe the iterative process of Fig. 3. However, this is no iteration of these steps as the claims are written. Furthermore, the steps of claims 2-4 appear to be what is meant by the first step in claim 1. If this is the case, claims 2-4 collectively would appear to be a double inclusion of claim 1, step 1; or, claims 2-4 individually could be considered as partially repeating claim 1, step 1.

Also, claim 5 appears to be (at least partially) what is meant by claim 1, step 2. Claim 5 is dependent on claim 1; are the steps of claim 5 intended to be additional steps occurring after the two steps of claim 1?

6. In light of the above informalities, the claims have been examined as could best be understood by the examiner. The examiner's failure to apply prior art to any of the claims should not be construed as an indication of allowable subject matter.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-7 (as understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Heinzelmann et al.

As can be best be understood by the examiner, Heinzelmann et al. disclose the same invention (albeit from a voltage standpoint rather than the current standpoint of the present application). Note the similarities of the algorithm of bottom of Fig.2 of Heinzelmann with Fig. 3 of the application. There are also large portions of the disclosure of Heinzelmann copied into the present application. The only apparent differences are in the voltage perspective of Heinzelmann versus the current perspective of applicant. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the teachings of Heinzelmann (given in a voltage perspective) to that of applicant (given in a current perspective) as the relationship between voltage and current is a well known law of nature.

Response to Arguments

9. Applicant's arguments filed 16 Jan 2001 have been fully considered but they are not persuasive.

Applicant argues that the structure associated with the claim terminology is clear and enabling. The examiner disagrees. Applicant contends that Fig. 1 is sufficient to describe the apparatus of the "means for determining" (it should be noted that applicant does not specify which means Fig. 1 is supposed to represent). Fig. 1 only shows the consumer, a switch, a current measuring device, and a "control unit". The consumer is what is being activated and the switch (or, more specifically, the time that it opens or closes) is what is being determined. Neither appear to be either (or perhaps both) of the "means for determining". The current measuring device is only an input into either (or both) of the "means for determining". Applicant is left with a black box (ref no. 130) in Fig. 1 to describe his entire apparatus. This simply is not enabling.

Applicant also argues that the use of the word "switching instant" in the specification renders the means for determining the switching instant definite and enabled. The examiner disagrees. There is no confusion as to whether a switching instant exists. It is an inherent property of all consumers. What is indefinite and not enabled is how it is being determined (i.e. the means for determining the switching instant).

The mere constuction of the method claims renders claims 2-6 indefinite. Where are these steps supposed to fit in with the two steps of claim 1?

Applicant argues that the reference used in the art rejection (Heinzelmann et al. ('585)) is a totally different invention. The examiner disagrees. Compare, for example, the first claim of ('585) with claim 1 of the instant application. The step "determining a switching instant" is the same. '585 treats the time window as an inherent property (which it is, there must be some time window) which has an adaptable set point (i.e. a duration which is determined). The two steps of claim 1 of the instant application is the same invention with the exception of voltage rather than currrent.

It should be noted that applicant has not amended the specification and made only minor, inconsequential changes to the claims. Presumably this is because any such attempt would introduce new matter into the present application.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Keasel whose telephone number is (703) 308-6260. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver, can be reached on (703) 308-2582. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

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February 25, 2001

KEVIN SHAVER 2/26/01
SUPERVISORY PATENT EXAMINER
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